

## **ABSTRACT**

The present invention discloses a relatively simple CVD method for forming branched carbon nanotubes. In general, the method includes adding a dopant to the precursor materials. The dopant can be a material that has a thermodynamically more favorable carbide-forming reaction at the reactor conditions than does the catalyst that is provided to the reactor by a second precursor material. The doped nanoparticles formed in the reactor can adhere to the walls of the developing nanotubes and provide a nucleation site for the development of one or more branches on the nanotube. The nanotubes formed according to the invention can be recognized as such due to the presence of the doped nanoparticles adhered along the walls of the branched nanotubes.